

Oct. 23. 2006 3:15PM INGRASSIA FISHER & LORENZ PC  
Appl. No. 10/696,917  
Amtd. Dated October 23, 2006  
Reply to Office Action of August 22, 2006

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**AMENDMENTS TO THE CLAIMS**

Please amend the currently pending claims as follows.

This listing of claims will replace all prior versions and listings of claims in the above-identified application:

Claim 1 (previously presented) A method for reducing false detects, comprising:  
emitting an infrared light beam from a primary emitter through at least one of air and smoke to a primary monitor detector;

detecting a first portion of the infrared light beam scattered by the at least one of the air and smoke with a primary receive detector;

measuring a first voltage value associated with the first portion of the infrared light beam using the primary receive detector;

setting a primary smoke alarm flag corresponding to a primary channel if the first voltage value is above a first threshold value;

detecting a second portion of the infrared light beam scattered by the at least one of air and smoke with a secondary receive detector, the secondary receive detector being associated with a secondary emitter and a secondary monitor detector;

measuring a second voltage value associated with the second portion of the infrared light beam using the secondary receive detector;

setting a secondary smoke alarm flag corresponding to a secondary channel if the second voltage value is above a second threshold value; and

setting an alarm indicating a smoke condition if the primary smoke alarm flag and the secondary smoke alarm flag are set.

Claim 2 (currently amended) The method as defined in claim 1, wherein, wherein the secondary receive detector is directed at a line interconnecting the secondary emitter and the secondary monitor detector.

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Claim 3 (previously presented) The method as defined in claim 2, further comprising determining a calibration level for the primary channel representing a scatter count of the air and wherein the first threshold value is equal to the calibration level for the primary channel plus a smoke count value that is equal to a three percent smoke value of the air.

Claim 4 (original) The method as defined in claim 1, further comprising determining a calibration level for the secondary channel representing a scatter count of the air.

Claim 5 (original) The method as defined in claim 4, wherein the second threshold value is equal to the calibration level for the secondary channel plus a smoke count value that is equal to a three percent smoke value of the air.

**Claim 6 (cancelled)**

Claim 7 (original) The method as defined in claim 6, further comprising setting a disable flag corresponding to the secondary channel if the secondary monitor detector is not capable of receiving the infrared light beam from the secondary emitter.

Claim 8 (original) The method as defined in claim 1, further comprising setting a disable flag corresponding to the primary channel if the primary monitor detector is not capable of receiving the infrared light beam from the primary emitter.

Claim 9 (original) The method as defined in claim 8, further comprising setting a maintenance fault flag for the primary channel if the disable flag for the primary channel is set.

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Claim 10 (original) The method as defined in claim 9, further comprising switching the secondary channel to the primary channel if the maintenance fault flag for the primary channel is set.

Claim 11 (original) The method as defined in claim 1, wherein the first threshold value is equal to the second threshold value.

Claim 12 (currently amended) A method for reducing false detects using an aircraft smoke detection system capable of simultaneously operating a primary channel and a secondary channel, the method comprising:

transmitting light from a first emitter through at least one of air and smoke to a first monitor detector;

receiving a first portion of the light using a first receive detector, the first portion of the light having been scattered by the at least one of air and smoke;

determining a primary voltage by measuring the first portion of the light received from the first receive detector and if the primary voltage is greater than a primary threshold value, then setting a smoke alarm flag for the primary channel;

receiving a second portion of the light using a second receive detector, the second portion of the light having been scattered by the at least one of the air and smoke, the secondary second receive detector being directed at a line intersecting a second emitter and a second monitor detector;

determining a secondary voltage by measuring the second portion of the light received from the second receive detector and if the secondary voltage is greater than a secondary threshold value, then setting a smoke alarm flag for the secondary channel; and

transmitting an alarm signal when the smoke alarm flag for the primary channel and the smoke alarm flag for the secondary channel are set.

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Claim 13 (currently amended) The method as defined in claim 12, further comprising transmitting light from the second emitter to [[a]] the second monitor detector.

Claim 14 (original) The method as defined in claim 12, wherein the primary threshold value is greater than or equal to a one percent smoke value.

Claim 15 (original) The method as defined in claim 12, wherein the secondary threshold value is greater than or equal to a one percent smoke value.

Claim 16 (original) The method as defined in claim 12, further comprising:  
setting a maintenance fault flag for the primary channel if the first monitor detector is not capable of receiving the light from the first emitter; and  
switching the secondary channel to the primary channel if the maintenance fault flag for the primary channel is set.

Claim 17 (cancelled)

Claim 18 (cancelled)

Claim 19 (cancelled)

Claim 20 (cancelled)